

NATOCHIN, V.M., dotsent; KURBATOV, M.N., inzh.; YUZHANIN, E.I., inzh.

Automatic control of autoclave operations at the ~~Novosibirsk~~
air-entrained concrete plant. Stroi.mat. 7 no.5:27-29 My '61.
(MIRA 14:6)

(Novosibirsk—Concrete plants) (Autoclaves)
(Automatic control)

ANDROSOVA, Z.G.; GIMETSINSKIY, A.G.; GHEEDINA, T.N.; KURDUBAN, L.I.; NATOCHIN,
Yu.V.; TOLKUNOV, B.F.

Conditioned reactions developing during the effect of humoral
factors. Zhur.vys.nerv.deiat. 9 no.3:388-397 My-Je '59.
(MIRA 12:9)

1. Chair of Physiology, Medical Institute, Novosibirsk.
(REFLEX, CONTIONED - pharmacology)

NATOCHIN, Yu. V.

A modification of the viscosimetric method for the microdetermination of hyaluronidase activity in biological fluids. *Biul. eksp. biol. i med.* 47 no.8:118-121 Ag '59. (MIRA 12:11)

1. Iz laboratorii evolyutsii vydelitel'nykh protsessov (sav. - chlen-korrespondent AMN SSSR A.G. Ginetsinskiy) Instituta evolyutsionnoy fiziologii imeni I.M. Sechenova (dir. - akademik L.A. Orbeli.
(HYALURONIDASE chemistry)

NATOCHIN, Yu.V.

Secretion of hyaluronidase by the kidney in various types of vertebrate animals. Biul.eksp.biol. i med. 48 no.10:10-14 O '59. (MIRA 13:2)

1. Iz laboratorii evolyutsii skretornykh i vydelitel'nykh funktsiy
(zav. - chlen-korrespondent AMN SSSR A.G. Ginetinskiy) Instituta
evolyutsionnoy fiziologii imeni I.M. Sechenova AN SSSR, Leningrad.
Predstavlena deystvitel'nyy chlenom AMN SSSR V.N. Chernigovskim.
(HYALURONIDASE urine)
(VERTEBRATES)

NATOCHIN, YU. V., CAND BIO SCI, "COMPARATIVE PHYSIOLOGICAL
peculiarities
~~CHARACTERISTICS~~ OF THE HYALURONIDASE SYSTEM - HYALURONIC
ACID IN THE KIDNEYS OF VARIOUS CLASSES OF VERTEBRATES.
MOSCOW, 1960. (ACAD SCI USSR. INST OF MORPHOL OF ANIMALS
IN A. N. SEVERTSOV). (KL, 2-61, 204).

-87-

MATOCHIN, Yu.V.; KRESTINSKAYA, T.V.; BROMSHTEYN, A.A.

Localization of the action of desoxycorticosterone in the nephron
of the mammalian kidney. Dokl. AN SSSR 132 no.5:1177-1178
Je '60. (MIRA 13:6)

1. Institut evolyutsionnoy fiziologii im. I.M. Sechenova Akademii
nauk SSSR. Predstavleno akademikom V.A. Engel'gardtom.
(KIDNEYS) (CORTICOSTERONE)

NATOCHIN, Yu.V.; KRESTINSKAYA, T.V.

Succinic dehydrogenase in sodium-reabsorbing segments of vertebrate nephrons. Fiziol.zhur. 47 no.3:388-392 Mr '61. (MIRA 14'5)

1. From the Sechenov Institute of Evolutional Physiology, Leningrad.
(KIDNEYS) (SUCCINIC DEHYDROGENASE)

NATOCHIN, Yu.V.; KRESTINSKAYA, T.V.

Succinic dehydrogenase and active sodium transport in the osmo-
regulating organs of vertebrates. Fiziol. zhur. 47 no.10:1306-
1313 0 '61. (MIRA 15:1)

1. From the Institute of Evolutionary Physiology of the U.S.S.R.
Academy of Sciences, Leningrad.
(SUCCINIC DEHYDROGENASE) (SODIUM METABOLISM)
(OSMOSIS)

NATOCHIN, Yu.V.; KHLEBOVICH, V.V.; KRESTINSKAYA, T.V.

Succinic dehydrogenase in the sodium-transporting organs of invertebrate animals. Dokl.AN SSSR 137 no.6:1474-1476 Ap '61.
(MIRA 14:4)

1. Institut evolyutsionnoy fiziologii imeni I.M.Sechenova AN SSSR
Zoologicheskiy institut AN SSSR. Predstavleno akademikom Ye.N.
Pavlovskim.

(Succinic dehydrogenase) (Sodium in the body)
(Invertebrates)

GINETSINSKIY, A.G.; VASIL'YEVA, V.F.; NATOCHIN, Yu.V.

Localization of hyaluronidase secretion in the nephron. Dokl. AN
SSSR 141 no.2:502-504 N '61. (MIRA 14:11)

1. Institut evolyutsionnoy fiziologii im. I.M.Sechenova AN SSSR.
Predstavleno akademikom V.N.Chernigovskim.
(HYALURONIDASE) (KIDNFYS)

NATOCHIN, Yu.V.; BOCHAROV, G.D.

Activation of sodium excreting cells in the gills of humpback
salmon and chum adapting to the life in sea water. Vop. ikht.
2 no. 4: 687-692 '62. (MIRA 16:2)

1. Institut evolyutsionnoy fiziologii imeni I.M. Sechenova
AN SSSR Leningrad i Murmanskoy morskoy biologicheskiy institut
AN SSSR, Dal'niye Zelentsy.
(Gills) (Sodium metabolism) (Salmon)

NATOCHIN, Yu.V.

Localization of dehydrogenases in the nephron cells of a grass
frog. TSitologiya 4 no.4:457-460 J1-Ag '62. (MIPA 15:9)

1. Laboratoriya razvitiya vydelitel'noy funktsii Instituta
evolyutsionnoy fiziologii AN SSSR, Leningrad.
(DEHYDROGENASES) (CELL METABOLISM) (KIDNEYS)

NATOCHIN, Yu.V.; SERAVIN, L.N.

Localization of dehydrases of Krebs' cycle in Protozoa. Dokl.
AN SSSR 143 no.5:1229-1232 Ap '62. (MIRA 15:4)

1. Institut evolyutsionnoy fiziologii im. I.M.Sechenova AN SSSR
i Leningradskiy gosudarstvennyy universitet im. A.A.Zhdanova.
Predstavleno akademikom V.N.Chernigovskim.
(DEHYDRASES) (PROTOZOA)

NATOCHIN, Yu.V.

Unsynchronous formation of systems of oxidizing enzymes
in the cells of different parts of the nephron of rats
in postnatal ontogenesis. Dokl. AN SSSR 147 no.2:509-512
N '62. (MIRA 15:11)

1. Institut evolyutsionnoy fiziologii im. I.M. Sechenova
AN SSSR. Predstavleno akademikom V.N. Chernigovskim.
(ENZYMES) (KIDNEYS)

SERAVIN, I.N., NATON, N.Y., V.V.

Effect of radiation on the survival of the
infection caused by the virus. Mikrobiologiya 5 no.4. 5-16
Aug '68. (MIR 1968)

1. Kufedra, I. N. et al. (1968) Izvestiya Vsesoyuznogo nauchno-
issledovatel'skogo tsentra fiziko-khimicheskoy i biologicheskoy
meditsiny i fiziologii. Leningrad.

NATOCHIN, Yu.V. (Leningrad, K-156, ul. Bol'shaya Ob'yednaya, 8, kv.7)

Cytochemical characteristics of the cells of different sections of
the vertebrate nephron. Arkh. anat., gist. i embr. 44 no.6:67-74
Je '63. (MIRA 17:7)

1. Laboratoriya razvitiya vydelitel'noy funktsii (zav. - chlen-
korrespondent AMN SSSR prof. Binetsinskiy [deceased]) Instituta
evolyutsionnoy fiziologii imeni Sechenova AMN SSSR, Leningrad.

NATOCHIN, Yu.V.

Activity of dehydrogenase and the functional characteristics of
cells from different nephron sections in rats. Dokl. AN SSSR
150 no.6:1359-1362 Je '63. (MIRA 16:8)

1. Institut evolyutsionnoy fiziologii im. I.M.Sechenova AN SSSR.
Predstavleno akademikom V.N.Chernigovskim.
(DEHYDROGENASES) (KIDNEYS---DISEASES) (CELLS)

NATOCHIN, Ya. V.

The mechanism of the sound overexcitation of the auditory nerve
in the frog Rana temporaria under the effect of light stimulation.
Fiziol. zhur. 49 no. 6, 1951, pp. 163.

1. From the Leningrad Institute of Zoology and Botany, Leningrad.

NATOCHIN, Yu.V.; Mikhel'son, M.Ya.

Research on pharmacological substances capable of increasing the effect of antidiuretic hormone. Biol. eksp. fiziol. 1962, 4: 58-62. Ja 1962.

1. Laboratoriya evolyutsii vydelitel'nykh funktsiy. Lav. - korr. korrespondent AMN SSSR A.G. Ginetzinskiy (deceased). Laboratoriya farmakologii biologicheskikh aktivnykh veshchestv. Lav. - korr. M.Ya. Mikhel'son. Instituta evolyutsionnoy fiziologii. Metel'skaya nova AN SSSR, Leningrad. Predstavlena deystvitel'nyy na zasedaniye SSSR V.M. Karasikov.

MAGAZANIK, L.G.; NATOCHIN, Yu.V.

Cytochemical study of enzymes of cellular respiration in myoneural synapses. TSitologiya 6 no.1:88-91 Ja-F '64. (MIRA 17:9)

1. Laboratoriya farmakologii biologicheskii aktivnykh veshchestv i
Laboratoriya razvitiya vydelitel'noy funktsii Instituta evolyutsionnoy
fiziologii AN SSSR, Leningrad.

NATOCHIN, Yu.V.; LEONT'YEV, V.G.

Pituitrin stimulation of the active transport of lithium across
the urinary bladder wall in the frog. Fiziol. zhur. 50 no.5:618-625
My '64. (MIRA 18:2)

1. Institut evolyutsionnoy fiziologii imeni Sechenova AN SSSR,
Leningrad.

NATOCHIN, Yu.V.

Adaptation to salt deficiency in animals with different types
of osmoregulation. Zhur. evol. biokhim. i fiziol. 1 no. 6:
523-530 N-D '65 (MIRA 19:1)

1. Laboratoriya razvitiya vydelitel'noy funktsii Instituta
evolyutsionnoy fiziologii i biokhimii imeni I.M. Sechenova
AN SSSR, Leningrad. Submitted June 16, 1965.

1 10293-66 ESS-2/ET(1)/ES(v)-3/EBC(k)-2/EWA(d) TT/RD/GM

ACC NR: AF6000310

SOURCE CODE: UR/0293/65/003/006/0935/0939

AUTHOR: Natochin, Yu. V.; Sokolova, M. M.; Vasil'eva, V. F.; Balakhovskiy, I. S.

ORG: none

TITLE: Investigation of the kidney function of the Voskhod-1 crew

SOURCE: Kosmicheskiye issledovaniya, v. 3, no. 6, 1965, 935-939

TOPIC TAGS: human physiology, manned space flight, kidney function, water excretion, Voskhod 1, Komarov, Feoktistov, Yegorov

ABSTRACT: The kidney function of the Voskhod-1 crew was analyzed quantitatively and chemically. The subjects underwent tests in which they fasted between 1900 hr and 0700 hr. Urine samples were collected for this period. At 0700 they drank boiled water, constituting 2 percent of their body weight, for a period of 30 min. Urine was then collected at 30-min intervals for 2 hr. Chemical analyses consisted of: 1) the photometric determination (SF-4A apparatus) of creatinine in the urine and blood serum (glomerular filtration); 2) the flame photometric determination of blood and urine Na and K concentration; 3) the cryoscopic determination of liquid osmolar concentration; 4) the Silber-Porter determination of 17-21 hydroxy-20-ketosteroids. The Smith method (H. Smith. Principles of Renal Physiology. N. Y., 1956) was used to quantitatively evaluate the osmoregulatory function of the kidneys. The results of these tests are given in Tables 1 and 2. It was concluded that the

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UDC: 629.198.61

L 10293-66

ACC NR: AP6000310

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Table 1. Results of kidney function tests of the Vosthod-1 crew

Indices	V. M. Komarov			K. P. Pashchikov		B. B. Yegorov		
	Control 5.IX	2 days after flight 13.IX	18 days after flight 1.10	Control 5.IX	18 days after flight 1.10	Control 5.IX	2 days after flight 13.IX	18 days after flight 1.10
Nocturnal cycle								
1. Normal filtra- tion, ml/min	134	133	135	131	129	114	100	110
2. Osmotic urine concentration/plasma	3.45	3.8	3.3	3.9	2.8	1.65	2.5	1.9
3. Urine sodium con- centration, mm equiv/l	250	189	183	193	202	120	220	150
Water load								
4. % Water load secreted/2 hr	60	21	66	64	43	85	42	71
5. Maximum diuresis after water load, ml/min	14.0	2.7	15.9	12.7	11.2	15	12.2	14.8
6. Osmotic urine concentration/ plasma at height of diuresis	0.26	0.93	0.19	0.18	0.46	0.17	0.26	0.25
7. Minimum urine sodium con- centration, mm equiv/l	15	30	5.9	7.8	12	6.9	5.0	5.7
8. C_{H_2O} at the height of diuresis, ml/min	18.4	0.19	12.9	10.4	6.05	12.3	9.0	9.0

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ACC NR: AP6000310

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Table 2. 17-oxycorticosteroid, potassium, and sodium excretion by the Vostok-1 crew

Indices	T. M. Fyodorov						E. P. Fomin						B. P. Yegorov					
	Control			After flight			Control			After flight			Control			After flight		
	1.18	2.18	3.18	10.18	15.18	20.18	1.18	2.18	3.18	10.18	15.18	20.18	1.18	2.18	3.18	10.18	15.18	20.18
17-OH steroids mg/day	6.5	6.8	6.5	6.7	6.3	3.7	4.8	3.0	6.3	3.3	3.8	3.7	3.8	3.8	4.1	3.6	7.4	2.3
17-OH steroids mg/m creatinine	3.2	3.4	3.2	3.3	3.1	2.1	2.4	1.7	4.7	2.9	3.1	2.9	4.1	1.7	2.2	2.3	4.0	1.4
K, g/day	2.2	2.2	2.7	2.3	2.9	2.9	2.4	2.7	3.6	2.2	2.7	2.6	2.4	2.4	2.3	1.5	2.6	1.8
Na, g/day	4.6	5.3	3.6	3.6	3.3	4.0	3.0	5.5	5.7	3.2	3.3	4.4	2.9	3.8	3.3	3.9	3.6	2.3
Na/K, g-equiv.	2.1	2.4	1.3	1.6	1.1	1.4	1.2	2.0	1.6	1.5	1.2	1.7	1.2	1.6	1.4	2.6	1.4	1.3

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ACC NR: AF6000310

water excretion by the Voskhod-1 crew was altered 2 days after the flight, based on the fact that their ability to eliminate water was decreased. This functional shift normalized after 18 days. It is hypothesized that, under the effect of space-flight stresses and especially during weightlessness, the water regulatory system adjusts to what seems to be elevated water and salt levels which increases the rate of water elimination. Upon return to terrestrial conditions the reverse is true, and water elimination progresses more slowly. Orig. art. has: 2 tables. [CD]

SUB CODE: 06/ SUBM DATE: 10Sep65/ ORIG REF: 006/ OTH REF: 002/ ATD PRESS:

4166

BC

Card 1/1

NATUCHIN, Yu.V. (Leningrad)

Histochemical study of enzyme activity of cellular respiration
in the kidney in experimental hydronephrosis. Arkh. pat. 27
no. 11:59-62 '65. (MIRA 18:12)

1. Institut evolyutsionnoy fiziologii i biokhimii imeni I.M.
Sechenova (direktor -- chlen-korrespondent AN SSSR prof. Ye.M.
Kreps) AN SSSR. Submitted April 20, 1965.

ZAKS, M.G.; NATOCHIN, Yu.V.; SOKOLOVA, M.M.; TANASIYCHUK, O.F.; TYVERSKOY, G.B.

Transport of sodium and potassium in the secretion of milk.
Fiziol.zhur. 51 no.4:513-519 Ap '65. (MIRA 18:6)

1. Institut evolyutsionnoy fiziologii i biokhimii imeni Sechenova
AN SSSR i Institut fiziologii imeni Pavlova AN SSSR, Leningrad.

L 00861-66

ACCESSION NO: AFS017649

UR/0219/65/060/007/0049/0053

616.831-006.918-005.761

AUTHOR: Dansker, V. L.; Natchin, Yu. V.

TITLE: Mechanism of action of a urea preparation on cerebrospinal fluid pressure in man

SOURCE: Byulleten' eksperimental'noy biologii i meditsiny, v. 60, no. 7, 1965, 49-53

TOPIC TAGS: urea, human physiology, brain, hematoencephalitic barrier, blood

ABSTRACT: Twenty-two persons with brain tumors, infused intravenously with lyophilized urea (30% solution in 10% glucose), exhibited an average decrease of 50% in cerebrospinal fluid pressure. The blood urea concentration increased in proportion to the amount of urea administered. The content of osmotically-active substances in serum did not change, but marked hydremia developed. Due to the low permeability of the blood-brain barrier for urea, an osmotic gradient may have been created between the blood and cerebrospinal fluid. The hydremia resulted from the flow of water and salts into the blood from the tissues. Since cerebrospinal pressure dropped after

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L 00964-66

ACCESSION NR: AP5017649

the first few infusions, when the osmotic concentration of the blood had not as yet increased, the decrease in cerebrospinal fluid pressure and volume of the brain was related to both the osmotic and non-osmotic effects of urea. Orig. art. has: 1 figure, 1 table.

ASSOCIATION: Leningradskiy nauchno-issledovatel'skiy neyrokhirurgicheskiy institut im. A. L. Polenova (Leningrad Scientific Research Institute of Neurosurgery); Laboratoriya razvitiya vydelitel'noy funktsii Instituta evolyutsionnoy fiziologii im. I. M. Sechenova AN SSSR, Leningrad (Laboratory of Development of Excretion, Institute of Evolutionary Physiology AN SSSR)

SUBMITTED: 18Feb64

ENCL: 00

SUB CODE: LS

NO REF SOV: 003

OTHER: 006

Card 2/2

NATOCHIN, Yu.V.

Mechanisms of the natriuretic effect of pituitrin. Fiziol.zhur. 51
no.3:357-362 Mr '65. (MIRA 18:5)

1. Institut evolyutsionnoy fiziologii i biokhimii imeni Sechenova
AN SSSR, Leningrad.

NATOCHIN, Yu.V.; DANSKER, V.L.; KEROVA, I.K.; LEONT'YEV, V.G.;
SOKOLOVA, M.M.

Dehydrating nonosmotic action of the urea; based on experiments
with the crystalline lens and the vitreous body. TSitologiya
7 no.6:753-756 N-D '65.

(MIFA 19:1)

1. Laboratoriya razvitiya vydelitel'noy funktsii Instituta
evolyutsionnoy fiziologii i biokhimii AN SSSR; Nauchno-issledo-
vatel'skiy neyrokhirurgicheskiy institut i Kafedra glaznykh
bolezney Gosudarstvennogo instituta usovershenstvovaniya vrachey,
Leningrad. Submitted April 16, 1965.

NATOCHIIY, M.V., instruktor

Accounting on a commercial basis on the Suvorov collective farm. Nauka i zhyttia 11 no.7:55-58 J1 '61. (MIRA 14:8)

1. Sel'skokhozyaystvennyy otdel Tsentral'nogo komiteta Kommunisticheskoy partii Ukrainy.
(Tul'chin District—Collective farms—Accounting)

NATOCHIV, P. A.

~~Excluded from Mermarech massif. P. A. Natochiv (Lvov
Univ.), *Atmospheric Science, L'viv. Univ. Collection* 9,
110-11 (1960).—A chem. analysis is given. M. Sestak.~~

USSR/Human and Animal Morphology. Circulatory System. S-4
Abs Jour: Ref Zhur - Biol., No 12, 1956, 294-298

Author : Natchkin, I. N.

Inst : Arkhangelsk Medical Institute

Title : The Veins of the Deep Nerves of the Upper Extremity
in Man

Orig Pub: Sb. tr. Arkhang. med. in-t, 1957, vyp. 17, "5-93

Abstract: 60 nerves of 20 upper extremities of men were studied by the method of injection of vessels and preparation. It was demonstrated that within the thickness of each bundle of the median, cubital and radial nerves, there exists a thick uninterrupted network of longitudinal small veins, anastomosing with each other. A second network, formed by branches of larger veins, is situated between the nerve bundles and the endoneurium, and

Card 1/3

USSR/Human and Animal Morphology. Circulatory System 3-4

Abs Jour: Ref Zhur - Biol., No 19, 1958, 88458

Abstract: anastomoses with the first network. A third network is found on the periphery of the nerves in the peri-and epineurium, and is anastomosed with transverse anastomoses with the second network. Larger veins are formed from the last network (ascending and descending) situated usually in the central areas of the nerves. These veins, leaving the nerve, very often join to form one vein. The number and the diameter of the veins in the bundles, between the bundles and of those leaving the nerve is always greater than that of the adjacent arteries. 7-8 veins leave the median nerve in the forearm and join the radial, and less frequently the cubital and interosseous, volar veins. In the arm, 7-8 veins leave the nerve and join mainly the brachial veins. From the cubital nerve in the forearm, 9-10 veins leave and reach the cubital veins, and in the arm - on the average 7 veins

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L 13467-66

ACC NR: AP6006024

SOURCE CODE: CZ/0053/65/014/004/0283/0283

AUTHOR: Natocin, J. V.; Rybova, R.; Janacek, K.

ORG: Laboratory of Cell Metabolism, Institute of Microbiology CSAV, Prague
(Laborator bunecneho metabolismu, Mikrobiologicky ustav CSAV)

TITLE: Cell swelling and transepithelial osmosis [This paper was presented during
Biophysical Days, Brno, 12 Jun 64.]

SOURCE: Ceskoslovenska fysiologie, v. 14, no. 4, 1965, 283

TOPIC TAGS: hormone, experiment animal, animal physiology, cell physiology,
endocrinology, cytology

ABSTRACT: Study to ascertain mode of action of the antidiuretic hormone in
increasing water permeability and through cells of interstitial spaces
in the bladder of Rana temporaria in vitro. Lack of osmotic gradient did
not prevent the antidiuretic hormone from increasing the tissue water from
 3.27 ± 0.08 per Kg of dry tissue to $3.64 \pm .01$, with a statistically high
significance. Role of potassium ions was found essential. [JPRS]

SUB CODE: 06 / SUBM DATE: none

Card 1/1

WATSON, I.

WATSON, I. : CZETT, J.

"Discussion of Aurel Bernard's Article 'Sphere of Authority of the Enterprise Manager', P. 13. (TCHITTELLIS, Vol. 1, No. 1, July 1964, Budapest, Hungary)

SC: Monthly List of East European Accessions, (FEAL), LC, Vol. 1, No. 1, Jan. 1965, Incl.

NATONEK, M.

HUNG.

✓ Production of streptomycin in plate columns. A. Kráclí, A. Kovács, B. Matkovich, M. Natonek, G. Pulay, and P. Turay. *Acta Biol. Acad. Sci. Hungarica*, 7:79-80 (1954) (in German). — The advantages of surface cultures are retained in the app. here described, which consists of a vertical series of Al plates sealed into a glass cylinder and provided with devices for adding media and inoculum, and taking samples rapidly and without risk of contamination. It is claimed that this device permits surface culture of streptomycin (I) to be conducted on an industrial scale as well as for various investigative procedures. In *Streptomyces griseus* cultures, production of I was max. (800-900 units/ml.) in a microclimate of air with 6.25 mm. Hg partial pressure of CO₂. With higher CO₂ partial pressures (9.8 mm., 13.3 mm. Hg), production of I was smaller. Production of I was max. when the oxidation-reduction potential (rH) was at its lowest value. In cultures superinfected by bacteriophage, there occurred a transitory rise in oxidation-reduction potential, which fell when *Streptomyces* again prevailed. With a high CO₂ content in the atm. over the culture (13.3 mm. Hg), the bacteriophage did not develop. *S. griseus* grew luxuriantly, while the production of I was very small or absent.

G. M. Hocking

WIX, G.; JIATONEK, M.; KOVACS, M.

On the effect of ultraviolet irradiation on the steroid-oxidation capacity of *Aspergillus niger*. Acta microb. hung. 6 no.3:197-202 1959.

1. Forschungsinstitut der Pharmazeutischen Industrie, Budapest.
(STEROIDS, metab.) (ULTRAVIOLET RAYS, eff.)
(ASPERGILLUS, radiation, eff.)

NOWAKOWSKI, Stanislaw, inz.; NATORSKI, Zdzislaw, inz.

The construction cycle of the blast furnace complex No.4 in the Lenin Ironworks. Huta Lenina Prace no.12:117-122 '62.

NATOV, A.

Russia - Economic Conditions - History

"Economic development of Russia in the 19th-20th centuries (1800-1917)." P. A. Khromov.
Reviewed by A. Natov. Vest.Inst. po izuch.ist.i kul't. SSSR no. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

NATOV, I.; KOLEV, T.

Bulgaria's civil defense is getting stronger. Voen. znan. 41 no.1:
20 Ja '65. (MIRA 18:2)

PETKOV, G.; NATOV, K.

Hemorrhagic fever in the Panagiurishche region. Suvren. med., Sofia
8 no.6:80-86 1957.

1. Iz vutreshnogo otdelenie pri Obedinenata gradska bolnitsa; Panagiurishche (Gl. lekar: K. Kuzmov).

(EPIDEMIC HEMORRHAGIC FEVER, epidemiology,
in Bulgaria (Bul))

NATOV, KH.

"The railroad-car workshop at the Vasil Kolarov Locomotive, Railroad-Car Plant in Ruse."

p.1 (Stroitelstvo, Vol. 5, no. 3, 1958, Sofia, Bulgaria)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 8, August 1958

KABAIVANOV, Vl.; NATOV, M.; GERDZHIKOVA, Sv.

Synthesis of ethyl aluminum sesquibromide and polyethylene in carbon dioxide atmosphere. *Godishnik khim tekhn* 6 no.1:29-35 '59 (Publ. '60.)

5.3400

41370

8/081/52/000/013/059/059
5168/5156

AUTORS: Kabanov, V.I., Matov, ...

TITLE: The reaction of p,p'-dioxydiphenyldimethylmethane with thionyl chloride

PERIODICAL: Referativnyi zhurnal. Khimiya, no. 18, 1962, 615, abstract 18834 (Godishnik Khim.-tekhnol. in-t, v. 6, no. 1, 1959(1960), 57 - 43 [Sulf.; summaries in Rus. and Ger.])

TEXT: The reaction of 4,4'-HOC₆H₄C(CH₃)₂C₆H₄OH-(I) with SOCl₂ was studied with a view to producing polysulfite of the type H-[O-C₆H₄C(CH₃)₂C₆H₄CSO-]_n-R. However, no proper resinous products were obtained with direct action of SOCl₂ on I at ~20°C or at elevated temperature, in the air or in an inert atmosphere, with or without solvents or in the presence of catalysts (ZnCl₂, AlCl₃, TiCl₄). Reaction of an alkaline solution of I with SOCl₂ produces NaCl, I and SO₂. Under the action of SOCl₂ on a sodium derivative of I(II) in C₆H₆ the reaction proceeds by the mechanism of heterophase poly-
Card 1/2

J/061/62/010/010/050/059
B168/B186

The reaction of ...

condensation, as a result of which a polymer of the composition
 $\text{Na}[\text{O}-\text{C}_6\text{H}_4\text{C}(\text{CH}_3)_2\text{C}_6\text{H}_4\text{OSO}-]_x\text{Cl}$ (III) is obtained. The calculated quantities
 of I with melting point 152°C and of NaOH are dissolved in water with
 heating, evaporated to dryness and dried in a vacuum at 100°C . 13 g SOCl₂
 is added to 27 g II in 50 g C₆H₆ at $20-60^\circ\text{C}$, 20 g III, soluble in benzene
 with a dripping point of $10-60^\circ\text{C}$ by the ring-and-ball method, is obtained
 by evaporating in a vacuum. When left to stand III hardens, which is due
 to its decomposition. [Abstracter's note: Complete translation.]

Card 2/2

KABATVANOV, Vl.; NATOV, M.

Obtaining the terpene phenols under the catalytic action of sulfuric acid. Godishnik khim tekhn 7 no. 7/2:185-193 '60 [publ. '61].

S/081/63/000/003/030/036
B144/B186

AUTHORS: Kabaivanov, Vl., Natov, M.

TITLE: Production of 100% resins from terpene phenols

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1963, 591, abstract 3761 (Godishnik Khim.-tehnol. in-t, v. 7, nos. 1-2, 1960 (1961), 195-202 [Eulg; summaries in Russ. and Eng.])

TEXT: The polycondensation of certain terpene phenols with formaldehyde (I) was studied. It was established that this process is similar to the polycondensation of phenol with I and can take place with an alkaline as well as an acid catalyst; with the latter, higher-molecular and higher-melting resins are obtained. The resin synthesized from bornyl phenol (II) and I is thermoplastic; that synthesized from a mixture of II, bornyl-ester phenol and I is thermoreactive. Both types of resin are oil-soluble. The optimum method of obtaining terpene-phenol resins is as follows: 230 g terpene phenol, 150 ml 30% formalin and 2.5% of 37% HCl (acid) are boiled for 2 hrs; after drying in vacuo the yield of resin is 260 - 265 g (after washing out the catalyst 245 - 250 g). [Abstract note: complete translation.]
Card 1/1

N T V, M.; KABAIVANOV, VI.; MIKHAILOV, M.

Obtaining trioxan. Godishnik khim tekhn 7 no.1/2:203-212 '60 [publ.
'61].

NATOV, M.

Amorphous state of polymers in a model mixture of polycaprcamide
and polyacrylic acid. Godishnik khim tekhn 9 no.2:57-66 '62
[publ. '63].

KARAIVANOV, VL.; GEORGIEVA, M.; NATOV, M.

Preparation of stable melamineformaldehyde-resin solutions.
Khim i industriia 35 no.5:170-172 '63.

L 42995-66 EWP(j)/T LIP(c) BM
 ACC NR: AP6031803 SOURCE CODE: BU/0011/65/018/009/0825/0828
 AUTHOR: Kabaivanov, V.; Natov, M.
 ORG: Chemico-Technological Institute, Sofia-Darvenitsa
 TITLE: Effect of polymers' molecular weight on the phase state of their binary mixture
 SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 9, 1965, 825-828
 TOPIC TAGS: molecular weight, amorphous polymer, crystalline polymer, acrylic acid, formic acid, macromolecule, electron microscopy, electron diffraction, x ray diffraction study
 ABSTRACT: The easiest way of modifying polymers is to mix them. One of the factors which plays a major role in determining the proper properties of polymers and polymer mixtures is their phase state. Consequently, the authors investigated a number of mixtures containing one crystallizing and one amorphous polymer. It was established that the molecular weight of the components strongly affects the phase state of their mixtures. The authors present also the dependence of the phase state of mixtures consisting of polycapronamide and polyacrylic acid obtained at 40° from their solution in 55-p. o. formic acid. Graphs show that when the molecular weight of the polycapronamide increases, it crystallizes less readily and amorphous mixtures

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with polyacrylic acid are formed more easily. In the case of the amorphous component, the compatibility with polycapronamide increases with a decrease in the molecular weight of polyacrylic acid. This effect may be the result of the conformation of macromolecules. The phase state of mixtures was determined by observations under polarization and electronic microscopes, by x-ray and electron diffraction, and by the results of the changes in the module of elasticity. The article concludes by a discussion of the possible interpretations of the results. This paper was presented by Corresponding member BAN B. Kourtev on 27 May 1965. Orig. art. has: 2 figures. [Orig. art. in Eng.] [JPRS: 34,518]

SUB CODE: 07, 20 / SUBM DATE: 27May65 / ORIG REF: 003 / SOV REF: 008
OTH REF: 008

Card 2/2 *SD*

L 42993-66 EMP(j)/T IJP(c) RM

ACC NR: AP6031802

SOURCE CODE: BU/0011/65/018/009/0821/0824

AUTHOR: Kabaivanov, V.; Mateva, R.; Natov, M.

ORG: Chemico-Technological Institute, Sofia-Darvenitsa

TITLE: Production of polyformaldehyde from trioxane under catalytic action of organoaluminum compounds

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 9, 1965, 821-824

TOPIC TAGS: chemical production, formaldehyde, trioxane, organoaluminum compound, polymerization, monomer, chemical purity, polymer chemical, molecular weight

ABSTRACT:

The widespread and general utilization of polyformaldehyde encounters only one major obstacle: the difficulties connected with the purification of the initial monomer and with the polymerization process. In recent years the symmetrical cyclic trimer of formaldehyde, trioxane, has therefore come to be increasingly used as the initial monomer. This approach has the shortcoming that the moisture found in trioxane affects the molecular weight and the properties of the final polymer. In order to bind the trioxane moisture chemically and then to produce polymerization, the authors used as driers organoaluminum compounds of the AlR_3 , AlR_2X , $AlR_1.5X_1.5$, and $AlRX_2$ type in which R is the alkyl radical and X - Cl, Br. These compounds are known to react vigorously with water, making a rapid and complete drying of trioxane possible. The paper describes proofs for the catalytic activity of organoaluminum compounds, gives probable mechanisms for the action of the catalyst, and gives a detailed description of the general experimental procedures, nitrogen purification, and the polymerization process proper. This paper was presented by Corresponding Member BAN B. Kourtev on 27 May 1965. Orig. art. has: 2 tables. [Orig. art. in Eng.]

SUB CODE: 07 / SUBM DATE: 27May65 / ORIG REF: 002 / SOV REF: 002 / OTH REF: 011
Card 1/1

41

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0919 0848

L 01750-67 EWP(j)/T IJP(c) RM

ACC NR: AP6035627

SOURCE CODE: BU/0011/65/018/011/1019/1022

NATOV, M., DJAGAROVA, E., Research Institute of the Rubber and Plastic Industries [Original-language version not given].

"Rheological Properties of Polymer Mixtures"

Sofia, Doklady Bolgarskoy Akademii Nauk, Vol 18, No 11, 1965, pp 1019-1022

Abstract: [English article] When mixed, polymers are known to undergo changes in their physico-mechanical properties. One may expect that their rheological properties will be altered, too, and consequently, the authors studied the rheological properties of polyethylene (Colone DYNH-3) mixtures with polyisobutylene (Opanol) and with natural rubber. An analysis of the rheological index and activation energy curves shows that the main reason for the departure from the additive viscosity law is the change of the activation energy of the viscous flow of the mixtures. Since this energy depends on the mobility of the mechanical segments within the macromolecules, it is clear that this mobility, i.e., the size of the mechanical segments of the polymers undergo changes when in the mixed state. This paper was presented by Academician D. Ivanov on 30 July 1965. Orig. art. has: 4 figures. [JPRS: 36,002]

TOPIC TAGS: polyethylene, polyisobutylene, activation energy, viscous flow

SUB CODE: 11,07,20 / SUBM DATE: 30 Jul 65 / SOV REF: 008 / OTH REF: 006

Card 1/1 pb

GORDEYEV, A.S., kand.tekhn.nauk, dotsent; NATOVICH, M.I., aspirant

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of hydraulic torque converters. Trudy MIIT no.175:96-107 '63.
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MIT no. 184:24-32 1964. (Y. B. 1964)

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Experimental determination of the flow parameter in hydraulic
torque converter. Study MFT no.195:129-149. 1964. (MFT 19:9)

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Determining the reception and release of CO_2 by individual
organs of cereals under constant conditions. Rost vyroba
10 no.7:Suppl:751-762 '64.

1. Research Institute of Grain, Kromeriz. Submitted May 25,
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NATR, Lubomir, prof. v. v. biolog

Lodging resistance and variety differences of the state that are
structure in winter wheat. Most typical. 1951-1952.

1. Research Institute of Grain, Kromeriz.

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Determining the CO₂ accumulation and transpiration by individual
organs of grains under stable conditions. Rost výroba 10 no.7:751-762
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NATRA, G.

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(Libraries and readers)

137 AND 138 CROSS

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1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
Chemical foundation of modern trends in chemotherapeutic research. N. A. Preobrazhenskii and A. G. Natradze. <i>Uspekhi Khim.</i> 15, 427-55(1946) --Review with emphasis on antagonism to metabolites of the sulfanilamide-<i>p</i>-aminobenzoic acid type. 103 references. G. M. Kozolapoff																			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION																			

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2-Aminothiazole. A. G. Natradze and L. N. Druts.
U.S.S.R. 69,303, Sept. 30, 1947. 2-Aminothiazole is
produced by condensation of chlorinated $\text{AcOCH}_2\text{CH}_3$
with thiourea. The chlorination is carried out without
adding solvents but adding to the $\text{AcOCH}_2\text{CH}_3$ a small
quantity of pyrrolidine or pyridine bases. M. Huseh

NATRADZE, A. G.

"Investigating the Pilocarpidine Alkaloid Series," Zhur. Obshch.
Khim., 17, No.9, 1947

Moscow Inst. of Fine Chemical Technology im. Lomonosov

Phenylpropane ethoxide. IX. Synthesis of isopropyl-

propylparacetamol. A. G. Natsudra and E. E. Mikhlin

(Lomonosov Inst. Fine Chem. Technol., Moscow). *J. Gen. Chem. (U.S.S.R.)* 17, 1718-27 (1947) (in Russian);

cf. C.A. 40, 2147; *Isosalicic acid* (100 g.) and 80 g.

PCl₅ were heated to 60°, then treated with 300 g. Br and

heated until decolorized; the soln., slowly added with

stirring to 147 g. abs. EtOH and treated with ice, gave

70.7% *Et α-bromoisobutyrate*, b_p 91-3°. This (148 g.),

added to the reaction mixt. of 106 g. di-Et malonate, 15.3 g.

Na, and 170 g. EtOH, then heated to 100° 12 hrs., freed

of EtOH, and washed with H₂O, gave 68% *Me₂CHCH-*

(CO₂Et)CH(CO₂Et), b_p 173-3°. This (83 g.), 165 cc.

conc. HCl, and 83 cc. water, refluxed until hydrolysis

was complete, gave on concn. 84% *isopropylsuccinic acid*,

m. 107°. This (27 g.) and 50 g. Ac₂O boiled 4 hrs., gave

88% *isopropylsuccinic anhydride*, b_p 126°, a soln. of which

(21 g. in 105 cc. EtOH), was satd. with HCl, heated on

a steam bath 2 hrs., then concd. *in vacuo*, and treated with

satd. NaHCO₃, gave 79% *di-Et isopropylsuccinate*, b_p 129°.

This (24.4 g.) and 19.3 g. HCO₂Et were added to the EtONa

from 2.6 g. Na and 5.2 g. EtOH in 75 cc. dry Et₂O, allowed

to stand 3 days in the cold and 2 days at room temp., then

treated with ice water, and the aq. soln. was sepd. and

extd. with Et₂O; the aq. soln. was carefully acidified to

Congo red with 10% H₂SO₄, extd. with Et₂O, and the ext.

passed onto amalgamated Al, allowed to react 3-4 hrs.,

and filtered, and the combined filtrate and Et₂O washings

were distd. to give 78% mixed *isopropylsuccinate-Et paracet-*

amides, b_p 165-76°; this on fractionation gave the 2 isomers,

b_p 165-7° and 175-6°; the 1st is the stable form, n_D²⁰

1.448, d₄²⁰ 1.1038; the 2nd crystallizes on cooling and m.

68-7°. The stable form (21.7 g.), boiled 16 hrs. with 4

parts of 1:1 HCl and concd. *in vacuo*, gave 83.6% *iso-*

propylparacetamic acid, m. 83-4° (from water or benzene).

This (5 g.) and 21 g. SOCl₂ heated 5 hrs. to 61-5° gave

99.5% *acid chloride*, b_p 139-40°. This (5.3 g.), slowly

added with stirring at -14° to the C₂H₅N₃ from 21 cc.

MeN(NO₂)CO₂Et in Et₂O, stirred 3 hrs. at -10°, and

conc'd. *in vacuo*, gave 99.2% *diacetylmethyl isopropylpara-*

cetamol, Me₂CHCH(CO₂CH₃)CH(CO₂CH₃)NH₂, m.

127.5-28.5°. This (10.8 g.) in 175 cc. abs. EtOH was

added to 0.7 g. fresh Ag₂O in 50 cc. abs. EtOH with stir-

ring, then kept 2 hrs. at 50° and reduced 1 hr.; after

filtration, the soln. was distd. to give 81.5% *Et isopropyl-*

homoparacetamate, b_p 161-3°, n_D²⁰ 1.467, d₄²⁰ 1.082. This

(4.5 g.) and 5 parts 20% HCl, refluxed 16 hrs., gave on

conc'n. *in vacuo* 85.5% *isopropylhomoparacetamic acid*, m.

110°. This with SOCl₂ gave 94.5% *chloride*, b_p 162-3°.

which was converted, as described above, into *diaceto-*

methyl isopropylhomoparacetamyl betone (99.3%), m. 84-5°.

This (from 2.6 g. acid), 25 g. AcOH, and 5 g. Ac₂O, heated

2 hrs. to 100°, then boiled 2 hrs., gave *acetoxyethyl*

isopropylhomoparacetamyl betone (81.4%), b_p 181-3°, d₄²⁰

1.104, n_D²⁰ 1.411. This (0.92 g.) in 21 cc. H₂O was added

to 2.7 g. Cu acetate and 3.5 g. 40% formalin in 75 cc.

25% NH₄OH and the mixt. heated to boiling over 1 hr.,

treated 0.5 hr. with H₂S, filtered, blown with air, treated

with 1/2 vol. conc'd. HCl, and boiled 0.5 hr., after evapn.

to dryness, the residue was taken up in a little H₂O, treated

with NH₄OH, and extd. with CHCl₃; evapn. of the ext.

gave crude *isopropylparacetamol*; this, neutralized with

1:15 HNO₃ to weak Congo red color and conc'd. *in vacuo*,

gave *isopropylparacetaminic nitrate* (88.5%), m. 124.5-

5.5° (from abs. EtOH); 40% K₂CO₃ gave 88.8% of the

free base, m. 89-8° (from EtOH); HCl salt (73% yield by

evapn. the aq. HCl soln. of the base), very hygroscopic.

The HCl salt (0.3 g.), 0.24 g. 35% formalin, and 0.2 cc.

H₂O, heated until clear, then treated with 0.12 g. HCO₂Et,

heated 15 hrs. to 100°, evap'd. *in vacuo*, and the residue

neutralized by 1:15 HNO₃, followed by evapn. *in vacuo*

and washing with dry EtOH, gave *isopropylparacetamol* (1)

nitrate (39.3%), m. 138-9°; the *free base* was isolated as a

yellow oil. The above methylation method was also

checked as follows: 1.5 g. 1-(hydroxymethyl)imidazole-

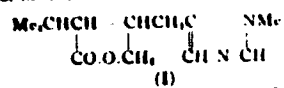
HCl, 3 g. 35% formalin, in 1.5 cc. water were heated until

clear, treated with 1 g. HCO₂Et, and heated 15 hrs. on a

steam bath; after evapn. *in vacuo* and treatment of the

residue with EtOH, the residue of 1-(hydroxymethyl) 5-

methylimidazole was converted to the *picrate* (86.3% yield).
The *picrate* was converted to the *HCl salt*, m. 92-4°, which
on mixing with the *HCl salt* of the starting material gave
a m. p. of 86-7°.



G. M. Kosolapoff

NATRADZE A. G.

Jan./Feb. 49

USSR/ Medicine - Drugs, Injections
Medicine - Drugs, Supply

"Production of High-Quality Solutions for Injections," G. D. Vovchenko, A. G. Natradze, S. I. Maymind, Ye. N. Tsitrin, All-Union Sci Res Chemicophar Inst imeni S. Ordzhonikidze, 6 pp

"Med From SSSR" No 1

Output of solutions in ampoules for injection is increasing from year to year, with 1948 plan figures as follows: up to 5 cc ampoules 168 million, 5 - 10 cc, 13 million and 20 - 50 cc 5 million. Above outputs are insufficient to satisfy demand. Solutions of 46 different kinds are prepared in ampoules. Discusses measures to increase quantity and quality of production. Mentions following factories: imeni Semashko, Moscow no 9, Tbilisi, Riga No 6, Novosibirsk Oblast Dept. of GAFU, and Stavropol Dept of GAFU.

PA 44/49T63

Corrosion-resistant materials for equipment of the chemical pharmaceutical industry. A. G. Nafraiz and Yu. P. Aronson. *Med. Prom. S.S.S.R.* 1949, No. 1, 10-11. A review of the usual properties of stainless steel, acid-resistant cast Fe, nonferrous alloys, rubber coatings, Bakelite-type coatings, polyvinyl chloride formulations, and bituminous and silicate coating. G. M. Kosolapoff.

NATRADZE, A.G.

VALASHEK, YE. R. NATRADZE, A. G.

33198. Universal'naya Ustanovka Dlya Melkotonnazhnykh Khimiko-Farmatsevticheskikh Proizvodstv. Med. Prom-St' SSSR, 1949, No. 5, C. 25-30

SB: Letopis' Zhurnal'nykh Statey, Vol. 45, Moskva, 1949

MATRADZE, A. G.

"Investigation of the Process of Rectification in Single-Film and Double-Film Columns." Sub 20 Jun 51, All-Union Sci Res Chemicopharmaceutical Inst imeni Sergo Ordzhonikidze (VNIKhFI)

Dissertations presented for science and engineering degrees in Moscow during 1951.

SC: Sum. No. 490, 9 May 55

NATRADZE, A.G., dekan farmatsevticheskogo fakul'teta, kandidat tekhnicheskikh nauk.

Additional training and specialization for pharmacists. Apt. uelo no. 4:35-40
Jl-Ag '53. (MLA 6:8)

1. Tsentral'nyy institut usovershenstvovaniya vrachey Ministerstva zdra-
vookhraneniya SSSR. (Pharmacy--Study and teaching)

NATRADZE, A.G., kandidat tekhnicheskikh nauk

Work in advanced training and specialisation of pharmacists. Apt.
delo 3 no.4:35-38 J1-Ag '54. (MLRA 7:8)

1. Iz farmatsevticheskogo fakul'teta Tsentral'nogo instituta usov-
ershenstvovaniya vrachey Ministerstva zdavookhraneniya SSSR.
(PHARMACY, education,
*Russia, train. & specialisation)

NATRADZE, A.G.

Nabradze, A.G.

Film rectification of binary mixtures. A. G. Nabradze. *Zhur. Priklad. Khim.* 27, 810-12 (1954). The following systems: $\text{Me}_2\text{CO}-\text{H}_2\text{O}$, $(\text{CH}_3\text{Cl})_2-\text{AcOH}$, $\text{AcOH}-\text{H}_2\text{O}$, $\text{MeOH}-\text{H}_2\text{O}$, $\text{Me}_2\text{CO}-\text{H}_2\text{O}$, $(\text{CH}_3\text{Cl})_2-\text{AcOH}$, $\text{AcOH}-\text{H}_2\text{O}$, and $\text{C}_6\text{H}_5\text{-chlorobenzene}$, were investigated in 3 single and 3 double wetted-wall columns (from 2.17 to 2.18 m. in length l , and d from 1.10 to 1.00 cm. in internal diam., and d , the double wetted-wall columns ($l = 2.00-2.30$ m. and d , the annular distance, from 1.00 to 1.57 cm.). The data supported the correlation $K_1 = A Re^{0.5} Pr^{0.25} S^{0.75}$, where K_1 , Re , and Pr are the criteria of Kirpichov, Reynolds, and Prandtl, resp.; S is the reflux ratio and S the no. of transfer units. The data from the 3 single wetted-wall columns fall on a straight line with extremely little scatter. The data for the following values of the const. A , m , n , p , q , and r : 0.714, 0.0655, -0.02, 0.028, 0.882, and 0.04. For the double-walled columns the corresponding values are 0.078, 0.08, 0.02, 0.034, 0.882, and 0.05. Δy is defined as $(y_2 - y_1)/f \Delta y/(y_2 - y_1) = (y_2 - y_1)/S$, where y is the mol. content of the low-boiling component in the vapor phase, and 1 and 2 refer to the lower and upper part of the columns. The most controlling factor, the largest exponent, is S . The ratio of K_2/K_1 indicates that liquid film resistance is considerable (cf. Peck, *et al.*, *C.A.* 46, 10081). The height equiv. to one theoretical plate is given as $(H. T. U.) = 1.59/K_1 \ln \frac{1 + S}{S}$. 1. Benecovitz.

All-Union Sci.-Res. Chem. Pharmaceutical Inst. in. Ordzhonikidze

KATRADZE, A.G.; NOVIKOVA, K.Ye.

Separation of the mixture cyclohexanone-cyclohexanol. Med.prom.
no.1:14-16 Ja-Mr '55. (MLRA 8:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut imeni S. Ordzhonikidze.
(CYCLOHEXANES,
cyclohexanone-dyclohexanol mixtures, separation)

NATRADZE, A. G.

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Med Continuous-diffusion equipment for extraction of medicinal
from plant matter. A. G. Natradze and A. M. Pilyashkevich. *Khim. Nauka i Prom.* 1, 465-66(1963).—A
description of several types of mech. arrangements of continuous
liquid-solid extractors suitable for pharmaceutical work with plant
matter. Diagrammatic sketches are shown for a disk-conveyor and a
screw-conveyor type of app. which proved themselves in exptl.
installations in USSR for extrn. of such substances as caffeine. G. M. K.

2

KATRADZE, A.G., kandidat tekhnicheskikh nauk; YAKOVLEVA, Ye.V.

Chemicopharmaceutical industry of the U.S.S.R. and certain other
countries. Khim.nauka i prom. 1 no.4:461-466 '56. (MLBA 9:11)
(CHEMISTRY, MEDICAL AND PHARMACEUTICAL)
(DRUG INDUSTRY)

NATRADZE, A. G. and GUSENKOV, P. V.,

Forty Years of Soviet Public Health Service, 1957, Moscow.

pages 513-556, Medical Industry
Trans. ~~100~~

NATKADZE, A. E.

Dehydration of tertiary butyl alcohol. Natkade
and K. P. Novikova. U.S.S.R. 105,440, May 25, 1957.
BaCl₂ is extd. from liq. mixt. with CHCl₃. The alc. and
CHCl₃ are then sepd. by known means. M. Hosh...

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Matradze A.

USSR/General Problems. Methodology. History. Scientific A
Institutions and Conferences. Instructions.
Questions Concerning Bibliography and Scien-
tific Documentation

Abs Jour : Ref Zhur-Khimiya, No 3, 1958, 5821

Author : A. I. Matradze

Inst :

Title : Forty Years of Soviet Chemical-Pharmaceutical
Industry

Orig Pub : Med. Prom-st' Zhur, 1957, No 10, 9-13

Abstract : No abstract

Card 1/1

NA 1000000, P. 6

NATRADZE, A.G.; NOVIKOVA, K.Ye.

Separating the mixture ethyl acetate - ethyl alcohol. Med.prom.
11 no.8:33-36 Ag '57. (MIRA 10:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut imeni S.Ordzhonikidze.
(ETHYL ALCOHOL) (ETHYL ACETATE) (DISTILLATION)

NATPAZZE A.G.

The liquid-vapor phase equilibrium in the methanol-chloroform system at 600, 500, and 400 mm. Hg pressure. A. G. Natpazze and E. R. Novikova (S. Khimichesk. Khim. Inst., Moscow, *Zhur. fiz. Khim.* 31, 1137-1141 (1957)). The phase equill. in the MeOH-CHCl₃ system was detd. experimentally at 600, 500, and 400 mm. pressure. The CHCl₃ mol. concn. of the azeotropic mixts. at these pressures and the b.p. of the azeotropic mixts. were 68.1%, b.p. 48.1°; 67.3%, 48.0°; 66.4%, 48.2°, resp., in fair agreement with results calcd. from the equation $\log p = A - \frac{B}{T - C}$, where x is the mol. concn. of one component, and the const. A fluctuates between 0.1 and 11.2 for liquids that differ widely (400-2500 cal./mole) in their latent heat of evapn. The difference for the latent heat of evapn. of MeOH and CHCl₃ is 1407. W. M. Stannett.

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PM 04/

NATRAZEV, A.G., kand. tekhn. nauk; ARONSON, Yu.P.; ROZEN, I.F.; ROZAKOVA,
Yu.M.; ZOLOTNITSKIY, I.M., red.; KNAKNIN, M.T., tekhn. red.

[Protecting chemical apparatus from corrosion in pharmaceutical
plants] Zashchita khimicheskoi apparatury ot korrozii v khimiko-
farmatsevticheskoi promyshlennosti. Pod obshchei red. A.G.
Natrads. Moskva, Gos. izd-vo med. lit-ry, 1958. 283 p.
(Drug industry) (MIRA 11:9)
(Corrosion and anticorrosives)
(Protective coatings)

AUTHORS: Novikova, K. Ye., Matradze, A. G. 6-50-2-7/10

TITLE: Graphical Computation Methods for Binary Azeotropic Mixtures (Graficheskiy metod rascheta binarnykh azeotropnykh smesey)

PERIODICAL: Khimicheskaya Promyshlennost', 1958, Nr 2, pp. 38-41 (USSR)

ABSTRACT: The advantage resulting from two-step rectifications at various pressures for the purpose of separating binary azeotropic mixtures suggests the necessity of a simple method of investigation at random pressure. Since until now no practically useful theoretical method of determination has been found the method for two pressures mentioned in the title is described. A rectangular space diagram is described in which the three parameters are represented by pressure, boiling temperature and mol-percents, the latter being put down in mol-percents as abscissa, the reciprocal value of absolute boiling temperature as ordinate, and the logarithm of pressure on the z-coordinate. The modification of these three parameters can be represented as a straight line which can be projected on a plane, and which can be used for mathematical deductions, as is shown by the au=

Card 1/3

Graphical Computation Methods for Binary Azeotropic
Mixtures

64-58-2-7/16

thors. A simplified method for the determination of the two-dimensional analytical geometry is described according to which the authors investigated 30 systems. From this can be concluded that the range of pressure changes at which azeotropes form is different for various systems. The continued change of composition of the azeotropic mixture according to the change of pressure is characteristic for all systems, the ranges of change, however, being different for every system. The data of azeotropes at random pressure can be represented graphically, just as well as the pressures at which the systems become azeotropic, and the concentration ranges within which an azeotropic formation takes place. A method of approximation for the investigation according to azeotropic data with a certain function (pressure) is also mentioned. Then the dependence of the azeotropic composition and of the boiling temperature on pressure is investigated. The results computed coincided with the experimentally obtained error limits tolerable in orientation computations. There are 3 figures, 1 table and 9 references, 4 of which are Soviet.

Card 2/3

Graphical Computation Methods For Binary Azeotropic
Mixtures

64-58-2-7/16

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevti-
cheskiy institut imeni S. Ordzhonikidze (All-Union Chemi-
copharmaceutical Scientific Research Institute imeni S.
Ordzhonikidze)

AVAILABLE: Library of Congress

1. Liquids--Thermodynamics
2. Liquids--Temperature factors
3. Pressure vessels--Performance
4. Mathematics

Card 3/3

NATRADZE, A.G.

NOVIKOVA, K.Ye.; NATRADZE, A.G.

Graph method of calculating binary azeotropic mixtures. Khim. prom.
no.2:102-105 Mr '58. (MIRA 11:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut imeni S. Ordzhonikidze.
(Azeotropes)

~~NATRADZE, A.G.~~ : NOVIKOVA, K.Ye.

Dehydration of tertiary butyl alcohol. Med.prom. 12 no.4:33-36
Ap '58. (MIRA 11:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy
institut imeni S. Ordzhonikidze.
(BUTYL ALCOHOL)

~~NATRADE~~ A.C.

Make more extensive use of synthetic materials and items in the
medical industry. Med.prom. 12 no.6:3-5 Je '58 (MIRA 11:7)
(MEDICAL SUPPLIES)
(SYNTHETIC PRODUCTS)

NATRADZE, A.G., MIKHALEV, V.A.

At Italian drug factories. Med.prom 12 no.10:56-58 0 '58
(MIRA 11:11)

(ITALY--DRUG INDUSTRY)

GEL'PERIN, N.I.; NATRADZE, A.G.; ALTYKIS, A.I.

Search for an efficient method for producing medical glucose.

Khim. i med. no, 12:5-18 '59.

(MIRA 13:10)

(GLUCOSE)

GEL'PERIN, N.I.; NATRADZE, A.G.; TOKAREVA, S.A.

Continuous-process production of barium sulfate. Khim. i med.
no. 12:18-26 '59. (MIRA 13:10)

(BARIUM SULFATE)